Anaphylaxis Information

What is Anaphylaxis?

Anaphylaxis is an acute, severe allergic reaction requiring immediate medical attention. It usually occurs within seconds or minutes of exposure to a certain food or substance, but on rare occasions may happen after a few hours.

Common triggers include peanuts, tree nuts, sesame, eggs, cow's milk, fish, certain fruits such as kiwifruit, and also penicillin, latex and the venom of stinging insects (such as bees, wasps or hornets).

The most severe form of allergic reaction is anaphylactic shock, when the bloodpressure falls dramatically and the patient loses consciousness. Fortunately this is rare among young children below teenage years. More commonly among children there may be swelling in the throat, which can restrict the air supply, or severe asthma. Any symptoms affecting the breathing are serious.

Medicine and Control

The treatment for a severe allergic reaction is an injection of adrenaline (also known as epinephrine). Pre-loaded injection devices containing one measured dose of adrenaline are available on prescription. The devices are available in two strengths - adult and junior.

Any, or all, of the following symptoms and signs may be present in an acute allergic reaction.
Antihistamine should be given at the first sign of an allergic reaction and the child closely observed. Antihistamine dose may need to be repeated if the patient vomits.
For a child who has asthma, if there is any sign of breathing difficulty then their reliever inhaler (usually blue) should be administered.

Minor reactions (needing oral antihistamine):

- Feeling hot/flushing
- Itching
- "Nettle sting like" rash/welts/hives (urticaria)
- Red, itchy watery eyes
- Itchy, runny or congested nose or sneezing
- Swelling: face, lips, eyes, hands
- Tummy pain
- Vomiting or diarrhoea
- Metallic (funny) taste in the mouth

Even where mild symptoms are present the child should be watched carefully as they may be heralding the start of a more serious reaction.

If the reaction continues to progress despite antihistamine and any of the following symptoms/signs are seen, then the EpiPen®/Anapen® should be administered into the muscle of the upper outer thigh and an ambulance called immediately.

Severe reactions (needing EpiPen/Anapen):

- Difficult/nosy breathing, wheeze, breathlessness, chest tightness, persistent cough
- Difficulty talking, change in voice, hoarseness
- Swelling, tightness, itchiness of the throat (feeling of 'lump in throat')
- Impaired circulation - pale clammy skin, blue around the lips and mouth, decreased level of consciousness
- Sense of impending doom ("I feel like I am going to die')
- Becoming pale/floppy
- Collapse

If an EpiPen®/Anapen® is administered, the child should be kept lying down, with feet raised (e.g.: on a chair) to assist circulation.

They should transfer to hospital in this "head-down" position.
Raising the patient's head or assisting them to sit or stand up can result in an acute severe deterioration of the allergic reaction.

Occasionally, a second EpiPen®/Anapen® may be required if there has been no improvement in the child's condition 5 to 10 mins after administering the first EpiPen/Anapen.

Staff that volunteer to be trained in the use of these devices can be reassured that they are simple to administer. Adrenaline injectors, given in accordance with the manufacturer's instructions, are a well understood and safe delivery mechanism. It is not possible to give too large a dose using this device. The needle is not seen until after it has been withdrawn from the child's leg. In cases of doubt it is better to give the injection than to hold back.

The decision on how many adrenaline devices the school or setting should hold, and where to store them, has to be decided on an individual basis between the Principal, the child's parents and medical staff involved.

Where children are considered to be sufficiently responsible to carry their emergency treatment on their person, there should always be a spare set kept safely which is not locked away and is accessible to all staff. In large schools or split sites, it is often

quicker for staff to use an injector that is with the child rather than taking time to collect one from a central location.

In other circumstances (with an appropriate Patient Group Direction [8]) a school nurse might hold a certain number of Epipens®, not individually named, and could use these to administer emergency medication (e.g.: antihistamine/adrenaline) to a patient who has not previously had this prescribed, but who is demonstrating the clinical features of a significant allergic reaction. This would cover those rare cases where a pupil presents with a first reaction in school. Teenagers with nut allergy are a particularly vulnerable group in this respect, a recognised factor in fatal reactions is failure to carry their own medication. Therefore a backup system in schools, governed by a Patient Group Direction would be a beneficial safety net.

[8] A patient group direction (PGD) is a written direction relating to supply and administration, or administration of a Prescription Only Medicine (POM), to persons generally, (subject to specified exclusions) and is signed by a doctor or dentist, and by a pharmacist.

Studies have shown that the risks for allergic children are reduced where an individual medication plan is in place. Reactions become rarer and when they occur they are mostly mild. The plan will need to be agreed by the child's parents, the school and the treating doctor.

Important issues specific to anaphylaxis to be covered include:

- anaphylaxis - what may trigger it
- what to do in an emergency
- prescribed medicine
- food management
- precautionary measures

Once staff have agreed to administer medicine to an allergic child in an emergency, a training session will need to be provided by local health services.
Staff should have the opportunity to practice with trainer injection devices.

Day to day policy measures are needed for food management, awareness of the child's needs in relation to the menu, individual meal requirements and snacks in school. When kitchen staff are employed by a separate organisation, it is important to ensure that the catering supervisor is fully aware of the child's particular requirements. A 'kitchen code of practice' could be put in place.

Parents often ask for the Principal to exclude from the premises the food to which their child is allergic. This is not always feasible, although appropriate steps to minimise any risks to allergic children should be taken.

Children who are at risk of severe allergic reactions are not ill in the usual sense. They are normal children in every respect except that if they come into contact with a certain food or substance, they may become very unwell. It is important that these children are not stigmatised or made to feel different. It is important, too, to allay

parents' fears by reassuring them that prompt and efficient action will be taken in accordance with medical advice and guidance.

Anaphylaxis is manageable. With sound precautionary measures and support from the staff, school life may continue as normal for all concerned.

The Anaphylaxis Campaign website contains Guidance for schools, which discusses anaphylaxis, treatment, setting up a protocol, and support for pupils and staff. It also includes a sample protocol. The Anaphylaxis Campaign Helpline is 01252 542029. The Anaphylaxis Campaign has also published the Allergy in Schools website which has specific advice for pre schools, schools, school caterers, parents, students and nurses.

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